

The Antonine Wall

Papers in honour of Professor Lawrence Keppie

edited by

David J. Breeze and William S. Hanson



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Cover illustrations

Front: The Distance Stone of the Twentieth Legion from Hutcheson Hill (*RIB* III 3507) found in 1969 lying face down in a shallow pit immediately to the south of the Wall (copyright Hunterian, University of Glasgow). **Back:** Restored half-life-sized statue of the Roman god Mars from the annexe of the fort at Balmuildy (*CSIR* 129) (copyright Hunterian, University of Glasgow).

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Lawrence at Westerwood. Photo the late Margaret J. Robb

Dedicated to the memory of Margaret Robb (1952-2017)

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22. Civil settlement and extra-mural activity on the Antonine Wall

William S. Hanson

It is generally agreed that civilian settlements (*vici*) were set up outside virtually every auxiliary fort in the Roman Empire and that these settlements were established at broadly the same time as the relevant fort. This close connection between fort and *vicus* is apparent from their integrated layout, including the location of cemeteries some distance from the fort in order to leave sufficient space for the development of a *vicus* (Sommer 1999). The inhabitants of military *vici* are likely to have included some of the (unofficial) wives and families of the soldiers, as well as their slaves, and army veterans, along with craftsmen, shopkeepers, innkeepers, prostitutes and merchants attracted by the captive market which the troops in garrison represented (Salway 1965: 22-33). There has been a considerable expansion in our knowledge and understanding of these military *vici* in Roman Britain between the 1980s and the 2000s, as is apparent when comparing Sommer's original survey with his more recent overview of the evidence (1984; 2006). This improvement has come about through a combination of increased levels of excavation, aerial reconnaissance and, particularly, geophysical survey (e.g. Biggins and Taylor 2004a and 2004b; Hopewell 2005), combined with a greater emphasis on the evidence for women and children on the northern frontier (e.g. Allason-Jones 1999). Analysis of the material culture from within forts has suggested that more non-combatants may have been resident within them than has previously been assumed, further blurring the distinction between military and civilian (e.g. van Driel-Murray 1997; Greene 2014; Allason-Jones *et al.* this volume).

There can be no doubt that this general principle of associated settlements for non-military personnel applied even to Rome's most northerly frontier, despite its remote location and relatively short period of occupation. Most telling is the very specific epigraphic evidence from the fort at Carriden where an altar was dedicated to *Jupiter Optimus Maximus*, the tutelary deity of Rome, by the villagers living together at the fort (*vicani consistentes castellum Veluniate*) (RIB III 3503). The inscription confirms the Roman name of the fort, Velunias or Veluniate, and the terminology used implies that the settlement had official status as a *vicus* with its own communal organisation. The altar was recovered some 135-140 m east of the north-east corner of the fort during ploughing, its location indicating it was probably set up on the parade ground, as such official dedications tended to be (Richmond and Steer 1957). Breeze has suggested that it may well be a physical manifestation of civilians from the *vicus* swearing the oath of allegiance to Rome and the emperor as referred to by Pliny (Breeze 2016a: 267; Pliny *Letters* 35, 36, 100-03), which further emphasises the very close relationship between such settlements and the army. Indeed, he goes on to suggest that the occupants of the *vicus* may have brought such privileges with them, further underlining their direct link to the military community.

Later aerial photography seemed to indicate that in fact the altar came from an area of small ditched enclosures (Keppie *et al.* 1995: 601-06) (below), making this association with military formalities seem less likely, but closer investigation suggests that Richmond and Steer were probably correct. Unfortunately, they marked the position of the inscription on their original plan as some 60 m

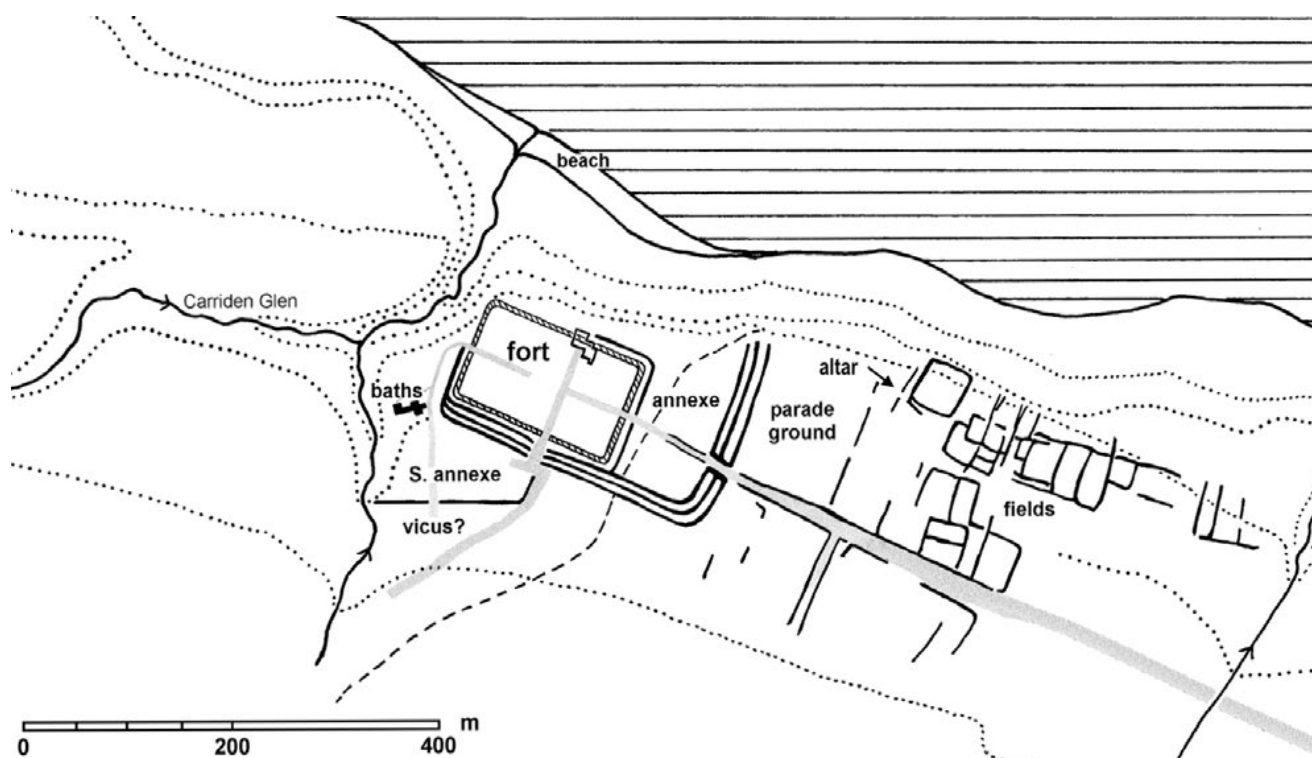


Figure 22.1. Plan of the fort, annexe and adjacent field system at Carriden, showing the corrected location of the altar dedicated by the *vicani* and the ditches of probable Roman date (after Bailey forthcoming, with corrections)

further away from the fort than they indicated in the text, an error that was further magnified when this planned location was included in the subsequent plotting of the aerial photographic evidence. Correcting that error places the inscription near the north-eastern corner of an open area to the north of the road leading out from the south-east gate of the fort's annexe (Figure 22.1), which has, not unreasonably, been interpreted as a parade ground. Interestingly, other parade grounds are attested along the Wall by altars to the goddesses of the parade ground found outside the forts at Castlehill and Auchendavy (Keppie 1998: 104-05; 107-08) in circumstances suggestive of deliberate burial.

Settlement foci

Despite considerable research effort over more than 40 years very little structural evidence of civil settlements outside the forts along the line of the Antonine Wall has been forthcoming. Some of the best evidence comes from Croy Hill where a single rectangular, open-ended building of slightly unusual construction was uncovered to the south-west of the fort (Hanson forthcoming: ch. 6). It was set within a fenced compound adjacent to a trackway that curved down the hill towards a well-constructed, metalled road that bypassed the fort. The wide range and large quantity of finds from the upper sections of the drainage ditches on either side of that trackway clearly indicated a strong focus of settlement activity on the well-sheltered, flat plateau immediately to the west of the fort



(Figure 22.2). This redeposited material represented some 75% of all the finds recovered from four seasons of excavation across 7000 m² of hillside to the south and east of the fort. It also hints at the quality of the *vicus* buildings, some with plastered walls, window glass and highly Romanised forms of decoration, as well as indicating the intensity and range of activities that was taking place within them.

Scattered post-holes, pits, road metalling and three ovens or kilns have been recorded immediately to the east of the fort at Falkirk, though these are assumed to lie within an annexe (below) as several of the features overlie the infilled ditches of the fort (Bailey forthcoming, ch. 10). Some 500 m further east, however, a somewhat enigmatic rectangular stone structure probably does relate to civilian activity (Keppie and Murray 1981). Though defined by rather ramshackle walls, the building was provided with a quite well-built, double hypocaust system and a pebbled courtyard area to the south. Window glass was also recovered. Despite these characteristics and its position adjacent to a good water supply, identification of the building as a military bathhouse seems improbable because of the distance separating it from the fort. It may, perhaps, have served as an inn for travellers (*mansio*) and its location implies that there would have been more extensive settlement between it and the fort. The significance of an apparent break in the Wall ditch some 70 m to the west of the building remain unclear in an area where the precise line of the Wall is uncertain (Breeze 1975; Bailey forthcoming, ch. 9).

Elsewhere along the Wall only very fragmentary structural remains have been identified. At Bearsden two separate lengths of broad cobble foundation, presumably designed to underpin timber walling, were recorded just outside the west gate of the fort (Breeze 2016b: 73-75; 348). Both were associated with Roman pottery and one had a pivot stone at one end, perhaps for a door. At Bar Hill traces of hearths associated with quantities of pottery were revealed in the early excavations to the north of the Military Way on the east side of the fort (Macdonald and Park 1906: 132; Robertson *et al.* 1975: 23), but geophysical survey across an area to the south and west, where quantities of Roman pottery and other finds had been recovered from fieldwalking (DES 1974: 34; 1976: 70), proved inconclusive (Jones *et al.* 2008a). Excavation to the west of the fort at Westerwood revealed a scatter of post-holes, overlying the remains of slight field ditches, adjacent to an area of burnt debris including window glass (Keppie 1995: 91; 97-98). Although the post-holes could not readily be assigned to specific buildings, they seemed to indicate north-south alignments. Some 145-150 m west of the fort at Mumrills a scatter of small post-holes forming a broadly rectilinear structure was identified (Smith 1939). It lay next to a north-south alignment of larger post-holes, from whose fill came the top of an altar to the mother goddesses (*RIB* I 2141) and other fragments of Roman building stone. The large post-holes had in turn been replaced or augmented by a line of clay and cobble foundation pads. An Antonine date for this structural complex is possible, but the absence of Roman pottery from the excavation and the re-use of Roman stone to pack the post-holes would tend to suggest that it was slightly later in date. Finally, slight remains of a rectangular timber building were recorded to the west of the northern annexe at Camelton (McCord and Tait 1978: 156 and Fig. 2) and in more recent excavations to the south-west of the south annexe (information from Martin Cook).

There are slight indications of buildings in some of the geophysical surveys that have been undertaken in recent years outside Wall forts. At Mumrills a rectilinear anomaly, presumably a stone structure, is visible in both the magnetic and resistance surveys of the area immediately outside the east gate of the fort (Stephens 2008); while at Castlecary a rectilinear stone building is apparent to the south of



the fort in the resistance survey (Jones *et al.* 2006). The latter, however, seems likely to be contained within a second annexe, an identification suggested by the earthworks which extend out from the fort to encompass the area according to the First Edition six inch and 25 inch Ordnance Survey maps. Accordingly, it may be interpreted as a bathhouse, though a stronger magnetic response might reasonably have been expected. Some support for the existence of a bathhouse to the south of the fort is provided by fieldwalking and limited trial excavation some 65 m further east, where quantities of Roman pottery and box flue tile were recovered, but no buildings identified (Bailey forthcoming: ch. 12). Extensive survey south of the Wall to the west of the fort at Auchendavy identified numerous anomalies, but no clear structures other than the fort bathhouse (Jones *et al.* 2008d); while similar survey to the south and east of the fort at Balmuildy was inconclusive (Jones *et al.* 2006).

The general failure of the extensive programme of geophysical survey to find substantive evidence of civil settlement along the Antonine Wall is a disappointment, all the more so given the success of the technique along Hadrian's Wall and in Wales noted above. Though it has been suggested that many of the forts may have been too small to provide a market for *vici* (Hodgson, this volume), the general failure of geophysical survey to identify them does not necessarily mean that such settlements did not exist, rather it seems to highlight a limitation of the survey technique in the soil conditions that pertain across the central belt of Scotland (Jones and Leslie 2015: 321-23). Geophysical survey has been highly successful in revealing more substantive features, such as ditches and the remains of stone buildings. However, it can be far less responsive to the more ephemeral remains of timber buildings, even within forts (Woolliscroft 2009: 1173). This is particularly the case if the buildings had not subsequently been demolished and partially infilled with burnt debris, and even more so when they are based on post-hole rather than post-trench construction, a method commonly in use in Antonine Wall forts (Hanson 1982: 177-79 and Table 9.2). Thus, while elements of the central range of stone buildings at Balmuildy and Mumrills are clear in the surveys undertaken within the forts, barrack buildings, even those known from excavation, are barely recognisable (Jones *et al.* 2006; Stephens 2008); similarly at Westerwood and Castlehill, the ditches of the fort are visible, along with a probable internal bathhouse at Westerwood, but other internal buildings much less so (Jones *et al.* 2008b; Jones and Hanson, this volume).

There is a marked increase in the quality of the evidence for civil settlement if the search is extended to contemporary sites along the southern coast of the Forth isthmus. Some 33 km east of Carriden a fort has long been known at Inveresk by the mouth of the river Esk, which may have served to protect a harbour for the transshipment of seaborne supplies (Hanson and Maxwell 1986: 190-91). Antiquarian records of Roman finds and modern excavations have confirmed the existence of quite an extensive settlement to its east (Thomas 1988; Bishop 2002b; 2004). Three phases of occupation have been uncovered. The first consisted of adjacent rectangular timber buildings; the second saw greater elaboration with more massively constructed buildings associated with elements of a street grid; and the third was characterised by the use of unmortared stone, stone-lined drains and furnaces related to ironworking. Finally, two altars known from the site, one re-used later in the Roman period, record the presence of Q. Lusius Sabinianus, the imperial procurator, second in rank only to the governor (RIB I 2132; Maxwell 1983: 385-89). Why the chief financial officer in the province was at Inveresk long enough to have dedicated these altars is not known, but it implies that the site was of some importance.



Land divisions and industrial activity

A range of other activities is known to have taken place in the immediate vicinity of forts, though determining the nature of the personnel involved can be problematic. However, activities that may have involved small-scale farming or animal husbandry seem more likely to have been in the civilian than in the military domain. Extensive investigation of the area to the east of the fort at Croy Hill revealed a combination of fences and ditches on both sides of the bypass road, respecting but not aligned with it (Figure 22.2) (Hanson forthcoming: ch. 5). A number of sherds of Roman pottery recovered from their fills, including an almost complete mortarium, confirmed an Antonine date. The fences and ditches served to divide up the area into small rectangular plots of varying size. Scatters of post-holes at the western end of these land divisions indicated the presence of what were probably rather ephemeral structures, though a single piece of window glass from one hints at some level of sophistication. A spread of occupation debris was identified less than 20 m to the north, but was not examined sufficiently extensively to determine its full extent or character and, given its location on the edge of a more low-lying and damp area, may have served as a midden.

Similar land divisions or field systems are attested outside several other forts along the Wall. Excavation some 150 m north-west of the fort at Auchendavy on the north side of the Wall revealed elements of a rectilinear arrangement of fields defined by a main ditch and two smaller linear features running at right angles (Dunwell *et al.* 2002: 274-279). Both of the latter seem likely to have been structural, presumably fence lines. Two of these features contained quantities of Roman coarseware of Antonine date and a few iron nails and probable hobnails. Excavation to the west of the fort at Westerwood located a few short sections of ditch and gully beneath later buildings, as noted above (Keppie 1995: 90-91 and 97-98), while at Rough Castle a group of some 12 small, conjoined sub-rectangular enclosures, defined by extant slight banks and ditches, are located 60-100 m south-east of the Roman fort. Sample excavation recovered no associated Roman material, so the excavators offered only a cautious endorsement of a possible Roman date (Máté 1995). However, since the system is aligned on a metalled road that in turn seems to be aligned on the bypass road around the east side of the fort, it may have defined contemporary garden plots or domestic/industrial enclosures similar to those at Croy Hill. Finally, at Carriden a system of small, ditch-defined rectilinear fields or plots aligned on the Roman road leading east from the eastern annexe of the fort has been recorded from the air, confirmed by geophysical survey and sampled by very limited excavation (Keppie *et al.* 1995: 602-06; Jones *et al.* 2008c). The system of conjoined enclosures starts some 145 m to the east of the annexe, just beyond the postulated parade ground (above) on the north side of the main road from the fort, and extends for over 365 m (Figure 22.1). Discontinuous lengths of ditch are recorded also to the south of the road on either side of a T-junction in the road, but they do not form a coherent pattern of enclosures. A few sherds of highly abraded pottery, either Roman or medieval, were recovered from the ploughsoil in sample trenches across the area.

Other sites in the wider vicinity confirm that contemporary agricultural activity adjacent to forts in the Antonine period was not unusual. A possible system of rectangular fields, broadly similar to that at Carriden, was recorded on aerial photographs in 1949 just beyond the Wall at Carmuir to the west of the fort at Camelon (CUCAP DH29), while recent excavations to the south-east of southern annexe of that fort have identified U-shaped ditches or gullies which seem to have been used in the Antonine period (Kilpatrick 2016: 24-26; information from Martin Cook). At Inveresk on the Firth of



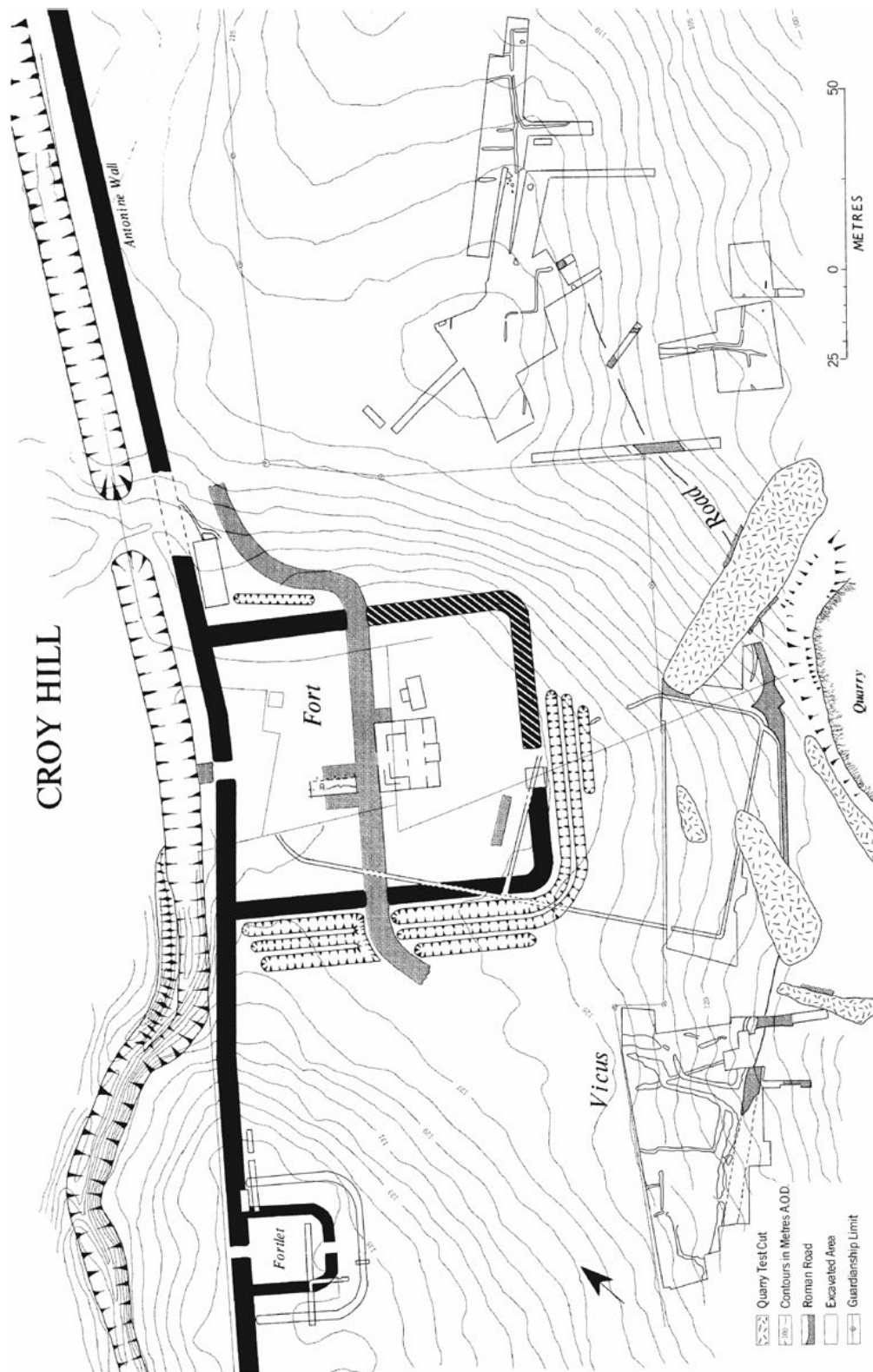


Figure 22.2. Plan of land divisions around the fort at Croy Hill (drawn by Lorraine McEwan; © W.S. Hanson).



Figure 22.3. Aerial photograph of field systems to the south-east of Inveresk partially overlying the end of a Neolithic cursus monument (© W.S. Hanson).

Forth (above), an extensive system of rectilinear field has been recorded over a number of years to the south-east of the fort (Brown 2002: 12-13 and figs. 5-9) (Figure 22.3). Such excavation as has taken place has been very small scale, but has provided confirmation that the fields were ditch-defined and in use in the Roman period (e.g. Cook 2004: 138-9 and 149-50; Leslie 2002).

Soldiers were certainly involved in aspects of production and manufacture (Breeze 1984: 275-77), particularly metalworking. However, the involvement of non-military personnel is also well attested, particularly in relation to pottery supply. Indeed, awareness that civil potters had moved their production centres into Scotland has grown in recent decades based on a range of evidence: fabric analysis; potters' stamps on mortaria; the recognition of wasters; and the restricted distribution of particular products (Hartley 1976; Breeze 1986). Such evidence has been noted at a number of forts on the Antonine Wall, including Balmuildy, Bearsden, Bar Hill, Croy Hill, Duntocher, Mumrills and Westerwood (Swan 1999: 452-61; Hartley 2016 and in Hanson forthcoming). Only rarely, however, have actual kiln sites been identified. A small figure-of-eight shaped furnace dug into the subsoil was located





Figure 22.4. The pottery kiln to the east of the fort at Croy Hill during excavation, showing broken masonry in its upper fill (© W.S. Hanson).

within the area of the rectangular plots east of the fort and to the north of the bypass road at Croy Hill and identified as a probable pottery kiln (Hanson forthcoming: ch. 5). It had clearly gone out of use in the Roman period as its furnace bowl had been backfilled with broken stone architectural fragments (Figure 22.4). A large deep pit nearby may also have been linked to pottery production. Several pottery kilns broadly similar in design to that at Croy Hill were located during building work partly dug into the hillside some 50 m to the south-west of the fort/annexe complex at Duntocher (Newall 1998: 25-8). Similarly, tile production is attested at Mumrills, where a substantial and well-preserved stone-built kiln was recorded (Macdonald 1915: 123-28 and plates II and III). It lay immediately behind the Wall rampart just outside the small annexe to the east of the fort. The likelihood that such tile kilns may have existed outside other forts is indicated by the variations in the style of box flue tiles at different sites, which suggest localised production, though this may have been undertaken by military personnel themselves (Keppie 2004: 218-19).

Other forms of industrial activity are occasionally recorded outside fort sites, though whether involving military or civilian personnel is less certain. For example, the presence of damaged architectural stonework in the backfill of both the kiln (Figure 22.4) and the adjacent large pit at Croy Hill (above) suggests the activities of a stonemason in the immediate vicinity, since they are clearly pieces, including two altar plinths, that were not completed and/or had broken during manufacture (Allason-Jones in Hanson forthcoming). Two of the linear features to the north-west of the fort at Auchendavy (above) contained non-ferrous metallurgical ceramics from a furnace or hearth. Glass-blowing may have been taking place at Camelon where one fragment of a moile, the surplus glass from the end of a blowing iron, was recovered from a pit adjacent to a multi-phase furnace within the Antonine annexe (Price 2002: 90 and information from Prof. Jenny Price). The fragmentary state of the glass recovered from

the fort at Bearsden, along with the absence of the heavier parts of vessels, suggests that broken glass was being systematically collected for recycling (Price 2016: 185).

People, religion and burial

The only cemetery known outside any of the Wall forts is at Camelon, though the evidence is both disparate and scattered. A cist containing an inhumation with weaponry, a stray find of a sword and six possible cremation pits have been recorded in gravel quarrying to the north-west of the fort (Breeze *et al.* 1976; Breeze and Rich-Gray 1980), along with an exotic stone funerary urn recovered from a nearby railway cutting in the mid-nineteenth century (Hunter, this volume). Elsewhere burials have been found only rarely, including a single cremation burial in a cooking pot to the south-east of the fort at Croy Hill (Hanson forthcoming) and undated burials outside the fort at Mumrills. However, tombstones or funerary reliefs are recorded from several forts. Though the majority of these are for military personnel, there are four that are almost certainly civilian in character (Keppie 1998: 65-67; 114-18). They were all found re-used in a souterrain built into the ditch of the Antonine Wall at Shirva approximately midway between Auchendavy and Bar Hill (Welfare 1984: 314-16). One of the tombstones is of a teenage boy, Salamanes, erected by his father of the same name (RIB I 2182). Neither were Roman citizens and the name form is Semitic. The absence of any reference to military rank suggests the father may have been a trader. A second stone commemorates Verecunda (RIB I 2183) (Figure 27.1). The use of only a single name, which translates as ‘modest’, indicates she was not a Roman citizen and was possibly a slave (Keppie 1998: 115; see also the brief discussion in Allason-Jones *et al.*, this volume). The other two stones built into the souterrain are funerary sculptures depicting women, or possibly the same woman, perhaps the wife of an officer given the more elaborate nature of the monument and the traditional Roman character of the depictions (Keppie 1998: 116-17). A derivation for all the stones found at Shirva from a cemetery outside the fort at Auchendavy is preferred here for three reasons: among the re-used stones was a building inscription of *legio II Augusta* which is also recorded on a tombstone from that fort; the type of sandstone used in the gravestones most closely resembles that of a group of altars from Auchendavy; and a column base, which was also recovered from the souterrain, is different in style from those found in the well at Bar Hill (RIB I 2174-79; Keppie 1998: 68).

Other named civilians who are known include specialist craftsmen. Potters who produced mortaria often stamped their wares with their names. Sarrius, who had workshops in both Warwickshire and Yorkshire, also set up production at Bearsden, along with possibly Mascellio and Cicu[ro] (Hartley 2016: 137-45). Finally, a further woman’s name, Materna (mother), is recorded as a graffito scratched after firing on two samian sherds, presumably as a mark of ownership. These were recovered from the filling of the outer ditch in the south-west corner of fort at Mumrills (Bailey forthcoming: ch. 5).

In most cases identifying the gender of the owners of artefacts is fraught with difficulty (Allason-Jones 1995), but shoes can confidently be assigned to women and, indeed, children because of their direct correlation with foot size. Despite the evidence being limited to waterlogged contexts, women’s and/or children’s shoes have been recovered at five Wall-related forts, predominantly from excavations at the beginning of the 20th century. The contexts of recovery include a refuse pit and the east ditch at Castlecary (Christison *et al.* 1903: 341-2); the ditches outside the west gate at Balmuildy (Miller 1922: 98-101 and plate 57); the defensive ditches, refuse pits and the well in the *principia* at Bar Hill (Robertson *et al.* 1975: 78-82); the southern annexe ditch at Camelon (Arkesteijn and van Driel Murray 2015); and



unstratified from Rough Castle (MacIvor *et al.* 1980: 276–8; Douglas 2015: 175–76). To the evidence of the shoes may be added two examples of pottery *tettinae*, sometimes identified as infant’s feeding bottles, one from the infilling of the outer fort ditch at Mumrills and one unstratified in the annexe at Bearsden (Steer 1961, 92 and 122–23; Bidwell and Croom 2016, 118–19). The presence of women and children at sites on the Antonine Wall has long been acknowledged, even if the potentially large number involved was not fully appreciated. What remains in debate is where they were living (see Allason-Jones *et al.*, this volume; cf. Hodgson 2014). The traditional view was that the shoe finds belonged to the wives and families of senior officers who would have been resident within the forts (Salway 1965: 160–61). While this might serve to explain the single example of a high status child’s shoe from Rough Castle, it is difficult to apply the same argument to the shoes from Bar Hill or Camelon, of which between 30% and 50% are from women, youths or children (Robertson *et al.* 1975: 80–82; Arkesteijn and van Driel Murray 2015; Allason-Jones *et al.*, this volume). The shoes have been recovered most commonly from the defensive ditches around forts or their annexes. These were often receptacles for rubbish, particularly during the clearing-up process when forts were being demolished, so there remains a slight element of uncertainty whether their original wearers were resident within the fort or in an adjacent civil settlement.

Altars dedicated to a range of deities have been recovered from apparently primary contexts some slight distance removed from several forts, which hints at the possible presence of small shrines in their immediate vicinity. One found close to the burn to the west of the fort at Castlecary was dedicated to Neptune by *cohors I Vardullorum*, while another to Victory, dedicated by *cohors VI Nerviorum*, was recovered in association with a quernstone and unidentified Roman coins some 180–275 m south of the fort at Rough Castle (RIB I 2149 and 2144). A small altar to Mars was found alongside a separate altar base during quarrying some 30 m south of the bypass road around the fort at Croy Hill, while at the foot of the hill, on which a number of natural springs have been recorded, an altar to the Nymphs was found which had been set up by a detachment of *legio VI Victrix* (RIB I 2159; 2160). Similarly, an altar to Silvanus dedicated by the prefect of *cohors I Hamiorum* was found some 220 m north-east of the fort at Bar Hill (RIB I 2167) and an altar to Hercules Magusanus, dedicated by a *duplicarius* of the *ala Tungrorum*, was found c. 1 mile (1.6 km) south-east of the fort at Mumrills (RIB I 2140; Bailey 1992). Finally, an altar to the wood nymphs and goddesses of the cross-roads dedicated by the wife of a legionary centurion, presumably the commanding officer of the unit there, was found during ploughing some 245 m west of the fort at Westerwood (RIB III 3504; Walker, this volume), while another altar, which may still be in its original position, is located on high ground (156 m OD) some 1.4 km to the south-west of the fort. Unfortunately, this altar, known traditionally as the Carrick stone, lacks any surviving dedication (Donnelly 1897). Though most of these altars were set up by military dedicators, the character and location of some of the dedications indicates less formal associations and links to deities with some local resonance.

The role of annexes

At least nine of the forts on the Wall were provided with an annexe, that is an enclosure attached to one side of the fort (Hanson and Breeze, this volume), though few have been subject to extensive excavation. These annexes varied considerably in size, with one or possibly two examples (Rough Castle and Duntocher) being even larger than the forts to which they were attached. The forts at Carriden and Mumrills, and probably also those at Falkirk and Castlecary, had two annexes, as did the fort at



Camelon just to the north of the Wall. Apart from bathhouses, which have been recorded within five or possibly six of the annexes, there are occasional remains of timber buildings in their interiors, though in one case attention was been drawn to the general absence of structures (McCord and Tait 1978: 156). Not infrequently annexes also reveal evidence of multiple pits, ovens or furnaces, suggesting that they housed semi-industrial activities (Bailey 1994: 307-09 and forthcoming: chs 5 and 10).

This general paucity of evidence is partly the cause of an ongoing debate about the function of these attached annexes. Some argue that they represent enclosed civil settlements (e.g. Sommer 1984: 18-22; 2006: 123; Thomas 1988: 163), hence their inclusion in this discussion. Others interpret them as serving entirely military requirements, such as for the production and maintenance of equipment, the provision of secure areas for goods and vehicles in transit, or the protection of livestock, such as cavalry horses (e.g. Salway 1965: 156-58; Bailey 1994: 305-11; Breeze 2006: 95).

This author prefers the latter interpretation for a number of reasons. The best examples of a civilian settlement, both on the Wall at Croy Hill or beyond it at Inveresk, show no sign of having been enclosed; nor do the traces of buildings outside the forts at Westerwood and Auchendavy; while at Bearsden, Falkirk and Mumrills there is evidence of buildings outside both fort and annexe. This chimes well with the evidence from Wales, where several forts are provided with both annexes and unenclosed civil settlements (Burnham and Davies 2010: 212-14; 217-19; 226-29; 272-75 and 282-86). This suggests that annexes served different functions from civil settlements, as Sommer now seems to agree (2006: 121-22). Elsewhere, when annexes have been more extensively excavated or geophysically surveyed, they not infrequently indicate open areas lacking in remains of buildings (Hanson 2007: 13-17; 240-45; 667-68; Hanson *et al.* 2019: 298-301; 308-12; 316). Finally, the provision of multiple annexes at four forts on the Wall makes more sense as a reflection of the compartmentalisation of different military requirements than the existence of multiple civil settlements.

Conclusions

While no single site along the Antonine Wall provides a comprehensive example of a civil settlement comparable with any of those recorded along Hadrian's Wall, traces of buildings and/or land divisions and/or pottery manufacture have been recorded to varying degrees around 11 of the 18 known forts, if Camelon is included. In addition, indications of the presence of non-military personnel, either in the form of names or of distinctive material culture, are known from nine of the forts, two of which lack structural evidence of civil settlement. This suggests that the impression of an absence of civilians living and working in the vicinity of the Antonine Wall is less an indication of the true situation and more a reflection of the short-term nature and more ephemeral character of the structural remains involved, and the concomitant limitations of the archaeological techniques that have been applied to their recovery. In contexts where the areas around forts have been subject to intensive and long-term agricultural erosion or building development, only large-scale area excavation is likely to recover further meaningful data.



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